



HURRICANE

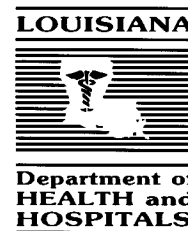
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www.dhh.louisiana.gov



STATE OF LOUISIANA
DEPARTMENT OF HEALTH AND HOSPITALS



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Safety Tips for Returning To Your Home After Hurricane Katrina

When returning to your home after evacuation from Hurricane Katrina, please be aware of conditions that can cause health risks for you and your family.

When You First Re-enter Your Home:

- Keep children and pets out of flooded areas until cleanup has been completed. Pregnant women should exercise caution when entering flooded areas.
- If you have standing water in your home and can turn off the main power from a dry location, then go ahead and turn off the power, even if it delays cleaning. If you must enter standing water to access the main power switch, call an electrician or the power company to turn it off. **NEVER turn power on or off yourself or use an electric tool or appliance while standing in water.**
- Have an electrician check the house's electrical system before turning the power on again.
- Natural gas or propane tanks should be shut off to avoid fire or explosions. If you smell gas or suspect a leak, turn off the main gas valve, open all windows, and leave the house immediately. Notify the gas company or the police or fire departments or State Fire Marshal's office. **Do not turn on the lights or do anything that could cause a spark.** Do not return to the house until you are told it is safe to do so.
- Consult your utility company about using electrical equipment, including power generators. Be aware that it is against the law and a violation of electrical codes to connect generators to your home's electrical circuits without the approved, automatic-interrupt devices. **Never operate a generator indoors, or in an enclosed or partially enclosed structure. Such improper use can create dangerously high levels of carbon monoxide and cause carbon monoxide poisoning.**
- Most homes in the area have been closed up for several days, and many have had water inside for a long period of time. If the house has been closed up for several days, enter briefly to open doors and windows to let the house air out for awhile (at least 30 minutes) before you stay inside for any length of time.
- Your home may be contaminated with sewage. Wear rubber boots and rubber gloves.
- If your home has been flooded and has been closed up for several days, presume your home is contaminated with mold. Consider wearing a NIOSH-approved N95 designated facemask, rubber gloves and goggles. See Fact Sheet on protecting yourself from mold.

Dry Out Your House:

- If you have electricity and an electrician has determined that it's safe to turn it on, use a "wet-dry" shop vacuum, an electric-powered water transfer pump, or sump pump to remove any remaining standing water. If you are operating equipment in wet areas, be sure to wear rubber boots.

- If you do not have electricity, or it is not safe to turn it on, you can use a portable generator to power equipment to remove standing water.
- If weather permits, open windows and doors of the house to aid in the drying-out process.
- Use fans and dehumidifiers to remove excess moisture. Fans should be placed at a window or door to blow the air outwards rather than inwards, so as not to spread the mold. As the water recedes, dust and residue will be left behind. This will be disturbed and blown around by the use of fans. Persons with asthma or other respiratory illnesses should avoid the area until cleanup has been completed.
- Have your home heating, ventilating, and air-conditioning (HVAC) system checked and cleaned by a maintenance or service professional **before you turn it on**. See Fact Sheet on protecting yourself from mold. If the HVAC system was flooded with water, turning on the mold-contaminated HVAC will spread mold throughout the house. When it is safe to do so, you can turn it on and use it to help remove excess moisture from your home.
- If you have a basement, ensure that crawl spaces have proper drainage to limit water seepage.

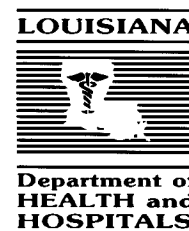
Cleanup:

- Keep children and pets out of the flooded area until cleanup has been completed. Pregnant women should exercise caution when entering flooded areas.
- Wear rubber boots, rubber gloves, and goggles during cleanup of affected area.
- Remove and discard items that cannot be washed and disinfected (such as, mattresses, carpeting, carpet padding, rugs, upholstered furniture, cosmetics, stuffed animals, baby toys, pillows, foam-rubber items, books, wall coverings, and most paper products).
- Remove and discard drywall and insulation that has been contaminated with sewage or flood waters.
- Thoroughly clean all hard surfaces (such as flooring, concrete, molding, wood and metal furniture, countertops, appliances, sinks, and other plumbing fixtures) with hot water and laundry or dish detergent and disinfect with a solution of 1 cup of bleach to five gallons of water.
- After completing the cleanup, wash your hands with soap and water. Use water that has been boiled for 1 minute (allow the water to cool before washing your hands).
 - You may also use water that has been disinfected for personal hygiene use (solution of $\frac{1}{8}$ teaspoon of household bleach per 1 gallon of water).
 - Let it stand for 30 minutes. If the water is cloudy, use a solution of $\frac{1}{4}$ teaspoon of household bleach per 1 gallon of water.
- Wash all clothes worn during the cleanup in hot water and detergent. These clothes should be washed separately from uncontaminated clothes and linens.
- Wash clothes contaminated with flood or sewage water in hot water and detergent. It is recommended that a Laundromat be used for washing large quantities of clothes and linens until your onsite wastewater system has been professionally inspected and serviced.
- Seek immediate medical attention if you become injured or ill.

For more information, visit <http://www.bt.cdc.gov/disasters/floods> or call the Louisiana Department of Health & Hospitals at 1-888-293-7020.



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Indoor MOLD and MILDEW After Hurricane Katrina

People at Greatest Risk for Health Effects from Mold:

- People with asthma, allergies, or other breathing conditions may be more sensitive to mold.
- People with immune suppression (such as people with HIV infection, cancer patients taking chemotherapy, and people who have received an organ transplant) are more susceptible to mold infections.
- If you or your family members have health problems after exposure to mold, contact your doctor or other health care provider.

Possible Health Effects of Mold Exposure:

- People allergic to mold may have a stuffy nose, irritated eyes, wheezing, or skin irritation, difficulty breathing and shortness of breath.
- People with weakened immune systems and with chronic lung diseases, such as obstructive lung disease, may develop mold infections in their lungs.

Recognizing Mold:

You may recognize mold by:

- Sight (Are the walls and ceiling discolored, or do they show signs of mold growth or water damage?)
- Smell (Do you smell a bad odor, such as a musty, earthy smell or a foul stench?)
- Moldy smells are a sign of molds and mildews, even if you cannot see them. If a building smells moldy, check for hidden molds and moisture

Cleaning Up Mold and Mildew:

Mold and mildew readily grow in damp conditions, particularly in wet areas. Wet materials must be removed and the building dried completely.

- Remove standing water. Clean up and dry out the building as soon as possible. Open doors and windows. Where possible, use fans to dry out the building.
- If your home has been flooded, it may be contaminated with mold. Consider wearing a NIOSH-approved N95 designated facemask, rubber boots, rubber gloves and goggles inside your home when working with moldy materials.
- **When in doubt, take it out!** Remove and throw away all porous items that have been wet. These items can remain a source of mold growth and should be removed from the home.
- Remove and throw away all wet carpet and padding.
- Bedding, mattresses, pillows, and upholstered furniture that are wet should be removed and thrown away. Launder all other clothing, sheets, and towels in hot soapy water.

- Remove all wet sheetrock, paneling, fiberglass or cellulose insulation and other porous wallboards. Remove at least 12 inches of wallboard above the water line or the damp area because of “wicking” of water up the walls. Clean wall studs after removing wallboards and allow studs to dry completely.
- Wash non-porous materials with soap and water and a stiff brush followed by a solution of chlorine bleach and water. Nonporous materials include tile floors, countertops, metal objects, plastic, glass and other hard nonabsorbent materials. Concrete and brick surfaces may also be cleaned this way. Dry completely.
- Remove mold growth from hard surfaces with soap and water, and disinfect with a bleach solution of 1 to 2 cups of bleach in 1 gallon of water. Repeat clean up and removal procedures as needed.
 - **Never mix bleach with ammonia.** Mixing bleach and ammonia can produce dangerous, toxic fumes.
 - Open windows and doors to provide fresh air and ventilate the area.
 - Wear non-porous gloves and protective eye wear.
- Materials that cannot be effectively cleaned and dried should be placed in plastic garbage bags for disposal.
- Valuable items such as books, wood furniture, or papers should be discarded if it cannot be cleaned. Saving damaged items may require hiring professionals such as conservators who are familiar with cleaning and restoration techniques.
- Check your air conditioning and heating systems for damage. Discard wet or water-damaged filters. You may need to hire a professional to inspect your system or to clean vents and air ducts.
- High humidity can cause mold growth even in areas not directly in contact with floodwaters. Mold may be behind furniture, under carpeting, under wood floors, behind and under cabinets, in closets and attics or in between walls.
- Contact a professional mold remediation consultant for further advice.

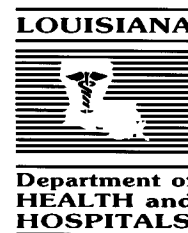
Finding a Licensed Mold Clean-Up Contractor:

1. Log onto www.lslbc.state.la.us/findacontractor.asp or call 1-866-310-7879
2. Contact the LSLBC, Louisiana State Licensing Board for Contractors for Do's and Don'ts when you hire a contractor.
3. Check with your insurance agent for referrals.
4. Get the contractor's business name and address.
5. Get in writing the estimated start and completion dates and the total amount to be paid when the work is done.
6. Never pay more than 10% of the total cost down at the beginning of the job.

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Keep Food and Water Safe After Hurricane Katrina

The floodwaters are contaminated with fecal material from overflowing sewage systems. There is a risk of disease from eating or drinking anything contaminated with floodwater.

Food stored in your home during and after Hurricane Katrina may not be safe to eat. Safe water for drinking, cooking, and personal hygiene includes bottled, boiled, or treated water. Monitor notices from your parish officials for specific recommendations for boiling or treating water in your area.

Identify and throw away food that may not be safe to eat:

- Throw away any food, including packaged and canned foods, which may have come in contact with floodwaters.
- Throw away food that has an unusual odor, color, or texture.
- Throw away foods stored in your refrigerator or freezer during the power outages.
- Throw away canned foods that are bulging, opened, or damaged.
- Do not use contaminated water to wash dishes, brush your teeth, wash and prepare food, wash your hands, make ice, or make baby formula.
- For formula-fed infants, use ready-to-feed formula. If using ready-to-feed formula is not possible, use bottled water to prepare powdered or concentrated formula. If bottled water is not available, use boiled or treated water as recommended by your parish officials.
 - If you prepare formula with boiled water, let the formula cool before giving it to an infant.
 - Clean feeding bottles and nipples with bottled, boiled, or treated water before each use.
 - Wash your hands or use alcohol-based hand sanitizer before preparing formula or feeding an infant.

Clean and sanitize food-contact surfaces:

CDC recommends discarding wooden cutting boards, baby bottle nipples, and pacifiers if they have come into contact with contaminated floodwaters. These items cannot be properly sanitized. Clean and sanitize food-contact surfaces that did not come in contact with floodwater in a four-step process:

1. Wash with soap and warm, clean water.
2. Rinse with clean water.
3. Sanitize by immersing for 1 minute in a solution of 1 teaspoon of chlorine bleach (5.25%, unscented) per gallon of clean water.
4. Allow to air dry.

Sanitation and Hygiene:

Always wash your hands with soap and water that has been boiled or disinfected or use an alcohol-based hand sanitizer:

- before preparing or eating food;
- after toilet use; and
- after handling articles that have come in contact with floodwater or sewage.

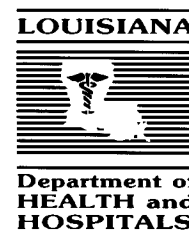
If any open wounds are exposed to flood water, keep them as clean as possible by washing well with soap to control infection. If a wound develops redness, swelling, or drainage, seek immediate medical attention.

Keep children and pets out of flooded areas until cleanup has been completed. Pregnant women should exercise caution when entering flooded areas. When children return after cleanup, wash children's hands frequently (always before meals), and do not allow children to play with floodwater contaminated toys that have not been disinfected. You can disinfect toys using a solution of one cup of bleach in 5 gallons of water.

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Repairing Your Home After Hurricanes Katrina and Rita:

Personal Protective Equipment (PPE)

Residents of parishes affected by hurricanes Katrina and Rita - including the City of New Orleans - will be returning to their homes and businesses to assess damage, remove debris, clean-up and rebuild. Qualified workers (roofers, dry-wallers, plumbers, electricians, etc.) will be overwhelmed by demand, and not readily available. A lot of the work will likely be performed by residents themselves. This could expose a large number of citizens to a variety of hazards.

Proper use of **Personal Protective Equipment (PPE)** such as boots, gloves and goggles can reduce the potential for injuries and illness. **Improper use of PPE can be hazardous.** If a Tyvek™ suit is required for a particular cleanup task, it is recommended that a trained professional should perform the task.

Recommendations for Personal Protective Equipment:

- **Boots:** For best protection when cleaning-up debris, floodwater and mud, wear insulated, watertight boots with steel shank, toe and insole. Do not wear sneakers because they will transfer contamination and will not prevent electric shocks, punctures, bites or crush injuries.
- **Gloves:** Wear leather or heavy work gloves for removing debris. Wear rubber or non-latex gloves when cleaning up flood water, mud or mold. Other types of protective gloves may be required, if handling certain material hazards. Protect any cuts or abrasions with waterproof dressings and gloves.
- **Eye protection:** Wear goggles, safety glasses with side shields or full-face shields to protect yourself from debris.
- **Head gear:** Wear a soft hat or other protective head cover. Wear a hardhat if there is any danger of falling debris or electrical hazards.
- **Earplugs/protective headphones:** Wear them if exposed to equipment noise, for example from a chainsaw, whenever you must shout over the noise to be heard.
- **Masks:** Wear a NIOSH-approved N95 mask or a NIOSH-approved respirator when exposed to dust or mold.
- **Clothing:** Wear comfortable, form fitting, lightweight clothes, preferably long pants and long-sleeved shirt, or coveralls. Be careful you do not become heat stressed.

- Remember to use insect repellent, sun block and lip balm as needed, depending on the work environments. Drink plenty of bottled water and take frequent rest breaks to avoid overexertion.

Take measures to ensure that you do not suffer heat stress. Drink lots of bottled water, take breaks often and eat light meals while you are working on your home. Wash your hands or use a hand sanitizer before eating.

SIGNS & SYMPTOMS OF HEAT STRESS

- not sweating
- rapid pulse
- throbbing headache
- dizziness
- nausea or vomiting
- muscle cramps
- fainting

STEPS TO PREVENT HEAT STRESS

- drink plenty of bottled water
- take regular breaks
- wear light-weight, light-colored, loose clothes
- wear a hat
- do not drink caffeinated or alcoholic beverages
- eat light meals

IF YOU HAVE SYMPTOMS, YOU SHOULD

- loosen or remove heavy clothing
- drink bottled water
- rest in the shade
- get cooled down
- get medical attention

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Smoke and Health After Hurricanes Katrina and Rita

Downed trees, bushes and foliage from Hurricanes Katrina and Rita are being burned as a part of debris removal efforts. Burning sites are located across south Louisiana. Smoke from these sites can travel long distances. Young children and people with respiratory diseases should avoid areas near burning sites.

What is smoke?

Smoke is produced during the burning of trees, branches and other organic matter. It is composed of particulate matter and gases, including carbon dioxide.

What happens to the smoke?

Smoke from the burning sites will travel through the air. It is diluted in air as it moves away from the burning sites. Some particles in the smoke may travel long distances from the fire. You may not even see them in the air.

Who is most sensitive to smoke?

Young children and people with chronic respiratory disease, such as asthma, emphysema or bronchitis, are sensitive to smoke. Also, people with cardiovascular disease may be affected. All of these people may experience increased difficulty in breathing when smoke is in the air.

Will smoke harm my health?

Smoke may irritate the eyes and respiratory tract in people. Smoke irritates membranes in the upper respiratory tract including the nose and throat. In healthy people, these effects are reversible and disappear after a few days. Very small particles in smoke may get into the lower respiratory tract. Smoke may trigger asthma attacks, make allergies worse and cause difficulty breathing in those people with emphysema or chronic bronchitis.

What do I do to prevent these effects?

During the time that burning takes place, stay indoors. Know the locations of debris burning and watch for changes in wind direction.

People sensitive to smoke should consider staying out of the areas where debris is burned until burning is completed.

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